

A B S T R A C T

A device for treating a web material in a continuous plasma enhanced process comprises a vacuum chamber (1) with means (2) for maintaining a constant reduced pressure within the chamber (1) and, arranged within the chamber (1), a rotating
5 drum (3) for supporting and transporting the web (4), a magnetron means facing the web (4) supported and transported by the drum (3) and a gas supply means for supplying a process gas or process gas mixture to the space (10) between the drum and the magnetron means in which space (10) the plasma is sustained. The magnetron means comprises a plurality of independent magnetron electrodes (6) with
10 rectangular magnetron faces arranged beside each other in parallel. Each magnetron electrode (6) is individually powered with an alternating voltage by its own power supply means (7). The drum (3) is electrically grounded, floating or negatively biased. The device is in particular applicable for coating a flexible web (4) in a plasma enhanced chemical vapour deposition process, e.g. for coating a web of a
15 polymer film with silicon oxide for improving its barrier properties. The device produces with a high reliability coatings of a very constant quality and needs only little maintenance which can be carried out in a simple manner.

(Figure 1)